

Towards 2014: Education Research on the Leading Edge of School Improvement?

A policy forum convened by



With support from
The William T. Grant Foundation

9:00 a.m. - Noon Tuesday, May 13, 2008
Academy for Educational Development Conference Center
1825 Connecticut Ave, NW
Washington, D.C.

Table of Contents

About this forum.....	3
Agenda.....	4
Panelists' Biographies	5
About the conveners.....	11
Reading Materials.....	17

About the Forum

In March of 2002, the National Education Knowledge Industry Association (now known as Knowledge Alliance), the Education Quality Institute, and the Progressive Policy Institute jointly convened a policy forum at the Academy for Educational Development in Washington, DC titled "Research in Education: On the Leading Edge of School Improvement?" With the recent passage of the No Child Left Behind Act, that forum attracted a standing room only audience and focused on the potential new role for education research in school improvement. Now six years later, the lead planners of that first forum (and several new faces and different organizations) have joined together again to take stock of what has transpired and where we are headed.

From our perspective, of the many ideas and initiatives that have emerged in K-12 school improvement over the past 30 years, one of the most self-evident, but least understood notions is the use of research-based knowledge in improving teaching and learning. With the heavy emphasis placed on scientifically based research by the No Child Left Behind Act and the Education Sciences Reform Act it is now almost a cliché that data, scientific evidence and research-based knowledge can and should shape policy and practice in education as is done in other sectors like medicine and agriculture. As the National Research Council's seminal report in 2002 on scientific inquiry in education emphasized, the nation cannot expect "reform efforts in education to have significant effects without research-based knowledge to guide them." But it is clear that education still has a long way to go before data and evidence are used systematically and effectively to develop policies, programs, and practices that have a significant, wide-scale, and long-lasting impact on students.

Through two interactive panel discussions with leading thinkers and experts, this forum will probe the many questions surrounding the connection between scientific research and school improvement---past, present, and future. We look forward to a dynamic and productive discussion.

***We wish to extend our special thanks to The William T. Grant Foundation for its support of this event.

***Also special thanks to the planning team: Michelle Rovins of the Academy for Educational Development; Renee Rybak of Education Sector; John Waters of Knowledge Alliance.

AGENDA

Guiding questions

Since the passage of No Child Left Behind Act and the Education Sciences Reform Act in 2002...

- How has high quality education research been defined?
- Has the quality of education research improved? How? Why?
- Has there been an increase in the use of research-based knowledge in shaping practice? In shaping policy?
- Has research-based knowledge had a significant effect on school improvement? Why/why not?
- In what issue areas has education research been used most effectively? Least effectively?

In looking ahead over the next five to six years...

- What are the challenges and opportunities for expanding the use of research-based knowledge?
- What is the appropriate federal role in the research and school improvement enterprise?
- What should be the primary focus of education research?
- What are the policy implications for the reauthorizations of ESEA and ESRA?

- 9:00-9:15 a.m.** Opening Comments
Jim Kohlmoos, Knowledge Alliance
Denise Borders, Academy for Educational Development
Steve Mosley, Academy for Educational Development
- 9:15-10:30 a.m.** First Panel
Andrew J. Rotherham, Education Sector (moderator)
Chester E. Finn Jr., Thomas B. Fordham Foundation
Marshall (Mike) Smith, William and Flora Hewlett Foundation
Grover J. (Russ) Whitehurst, Institute of Education Sciences
- 10:30-10:45 a.m.** Break
- 10:45-11:50 a.m.** Second Panel
Steve Fleischman, American Institutes for Research (moderator)
Gina Burkhardt, Learning Point Associates
Frederick Hess, American Enterprise Institute
Jason Snipes, Council of the Great City Schools
Lisa Towne, National Academies
- 11:50-Noon** Closing Comments
Denise Borders, Academy for Educational Development
Jim Kohlmoos, Knowledge Alliance

Podcasts of this event will be available on the convening organizations' web sites--watch for email announcements.

PRESENTERS AND PANELISTS

Denise Glyn Borders, Ed.D., serves as the Senior Vice President and Director of the Academy for Educational Development's U.S. Education and Workforce Development Group. Utilizing her expertise as a specialist in Pre-K-12 reform, accountability, and assessment systems, her work at AED has focused on states, districts, schools and communities engaged in reform; teacher education, middle grades and high school reform; youth in transition from school to college and career; children and youth with disabilities; early childhood education and Head Start; post-secondary institutional planning and management; and workforce development. Prior to joining AED in 2002, Dr. Borders was president and chief executive officer of The McKenzie Group where she focused on research, assessment, accountability, and K-12 reform in urban school districts. Dr. Borders was an evaluation, measurement, and assessment manager for McGraw-Hill, served in the Department of Defense (DoD) Senior Executive Service (SES) as deputy director for the worldwide Department of Defense Education Activity (DoDEA). She has also been a senior administrator and teacher in many school systems. Dr. Borders has served in leadership positions and boards of directors for many organizations. Currently she serves on the boards of Mass Mutual/West Financial, the National Center on Education and the Economy (NCEE), is an executive board member for Knowledge Alliance (formerly NEKIA), and is on the Technical Advisory Board of the District of Columbia Public Schools (DCPS).

Dr. Borders holds a Doctorate of Education in Psycholinguistics and Research from Columbia University, Teachers College. In addition, Dr. Borders holds a Master of Education in Curriculum and Teaching and a Master of Arts in Urban Education from Columbia University, Teachers College. She also earned a Master of Science in Elementary Education from SUNY Cortland/Cornell University.

Gina Burkhardt is chief executive officer of Learning Point Associates, a nationally recognized nonprofit education research and consulting organization that delivers high-quality, client-focused evaluation, policy, research, and professional services focused on afterschool, district and school improvement, leadership, literacy, and teacher quality. Burkhardt led the organization through its transformation from a 40-person single-contract regional nonprofit into a diversified consulting organization with a \$35 million budget, staff of 170 and offices in three states. Burkhardt is

accountable to the Board of Directors for the integrity and continued success of the organization.

Burkhardt's expertise includes leadership, organizational development and systems change, district and school improvement, and policy research. Burkhardt joined the North Central Regional Educational Laboratory (NCREL) in 1997 and was named executive director in 1999. In June 2004, under Burkhardt's vision and leadership, NCREL became Learning Point Associates with Burkhardt as the chief executive officer.

A life-long educator, Burkhardt began her career as a middle school mathematics and science teacher in upstate New York. Since then she has held positions in higher education as a lecturer; managed school reform projects at the regional educational laboratories serving the southwest and northeast regions of the United States; and consulted internationally on education systems design in The Netherlands, Slovakia, and Montenegro. Burkhardt completed her doctoral coursework in educational psychology at the University of North Carolina at Chapel Hill and holds several key professional appointments including membership in the Consortium on Chicago School Research at the University of Chicago and on the board of directors of Knowledge Alliance (formerly the National Education Knowledge Industry Association).

Chester Finn Jr. is a scholar, educator, and public servant who has been at the forefront of the national education debate for 35 years. Born and raised in Ohio, he received his doctorate from Harvard University in education policy. He has served, inter alia, as a professor of education and public policy at Vanderbilt University, counsel to the U.S. ambassador to India, legislative director for Senator Daniel Patrick Moynihan, and assistant U.S. secretary of education for research and improvement. A senior fellow at Stanford's Hoover Institution and chairman of Hoover's Koret Task Force on K-12 Education, Finn is also president of the Thomas B. Fordham Foundation. He serves on the board of several other organizations concerned with primary-secondary schooling. The author of 16 books and more than 400 articles, his work has appeared in such publications as *The Weekly Standard*, *Christian Science Monitor*, *Commentary*, *The Public Interest*, *The Wall Street Journal*, *Washington Post*, *New York Times*, *Education Week*, *Harvard Business Review*, and *Boston Globe*. Finn is the recipient of awards from the Educational Press Association of America, *Choice Magazine*, the Education Writers Association, and the Freedoms Foundation at Valley Forge. He holds an honorary Doctor of Laws degree from Colgate University. He and his wife,

Renu Virmani, a physician, have two grown children and two adorable little granddaughters. They live in Chevy Chase, Maryland.

Steve Fleischman, a vice president of the American Institutes for Research (www.air.org), specializes in the identification and successful implementation of high-quality, effective education programs and practices. Mr. Fleischman has provided leadership for U.S. Department of Education-funded school improvement projects such as the Scientific Evidence in Education Forums, Comprehensive School Reform Quality Center, Supplemental Educational Services Quality Center, National High School Center, What Works Clearinghouse and AIR projects in support of four regional Comprehensive Assistance Centers and three Regional Education Labs. Each of these projects provides education decision-makers with the information and guidance they need to take evidence-based action to best meet local needs.

Mr. Fleischman has been involved in the promotion of effective, evidence-based school improvement approaches since the mid-1990s. He has nearly 25 years of education experience and has served as a director as well as an advisor to numerous education improvement projects in education. Mr. Fleischman is also an author of a variety of articles on school improvement that have appeared in publications such as Education Week, Transformation, Urban Advocate, and the Journal of Education for Students Placed at Risk. He created and edited the "Research Matters" column on effective practices that appeared in each issue of ASCD's Educational Leadership from 2004-06. Mr. Fleischman is a frequent presenter on the topic of evidence-based school reform at national and international conferences of leading education and research organizations.

Mr. Fleischman is a former middle and high school social studies teacher. He holds a Master's degree with high honors in political science from the University of Florida.

Frederick M. Hess is Director of Educational Policy Studies at the American Enterprise Institute and Executive Editor of *Education Next*. His many books include *When Research Matters* (Harvard Education Press), *No Child Left Behind: A Primer* (Peter Lang), *Common Sense School Reform* (Palgrave Macmillan), *Spinning Wheels* (Brookings Institution), *Bringing the Social Sciences Alive* (Allyn-Bacon). His work has appeared in scholarly and more popular outlets like *Teachers College Record*, *Harvard Education Review*, *Social Science Quarterly*, *Urban Affairs Review*,

Education Week, Chronicle of Higher Education, Phi Delta Kappan, Washington Post, and National Review. Dr. Hess serves on the Review Board for the Broad Prize in Urban Education and the Board of Directors for StandardsWork. A former high school social studies teacher who has taught at the University of Virginia, Georgetown University, and Harvard University, he holds his M.Ed. in Teaching and Curriculum and his M.A. and Ph.D. in Government from Harvard University.

Jim Kohlmoos is the President and CEO of Knowledge Alliance, a non partisan non profit trade association in Washington DC dedicated to the effective use of research based knowledge in education policy and practice. With three decades of experience in educational leadership and innovation in both the public and private sectors, Kohlmoos is charged with leading a national advocacy effort to expand support for evidence-based education and knowledge-based solutions in school improvement.

Prior to joining the Alliance in 2001, Kohlmoos was a vice president of Implementation Group, where over a two- year period as vice president he built an extensive bi-partisan government relations practice in elementary and secondary education. From 1993 to 2000 Kohlmoos served at the U.S. Department of Education as both a Deputy Assistant Secretary of Elementary and Secondary Education and as a Senior Adviser and Special Assistant. He also served on the Presidential Transition Team in 1992. From 1977 to 1993, he worked at the close Up Foundation first as an instructor and director and then as vice president..

Kohlmoos began his professional career in education 1971 with the U.S. Teacher Corps in Salinas, CA. He subsequently served as a teacher trainer with the Peace Corps, which took him to Malaysia for three years.

Kohlmoos holds a baccalaureate in history from Stanford University (1971), plus teacher credentials from the University of California. He has completed graduate courses at Johns Hopkins University, George Washington University, and the University of California at Santa Cruz. A native of California, Kohlmoos has two adult children and resides in Arlington, VA, with his wife.

Andrew J. Rotherham is co-founder and co-director of Education Sector and senior fellow at the Progressive Policy Institute. In addition, he serves on the Virginia Board of Education, a position he was appointed to by Governor Mark Warner in 2005. Previously, Rotherham served at The

White House as special assistant to the president for domestic policy during the Clinton administration. Rotherham is the author of numerous articles and papers about education and the co-editor of three books on educational policy, most recently *Collective Bargaining in Education: Negotiating Change in Today's Schools* with Jane Hannaway (Harvard Education Press, 2006). Rotherham serves on advisory boards and committees for a variety of organizations including The Broad Foundation, Harvard University, the National Governors Association, and the National Charter School Research Project. He is also a trustee of the César Chávez Public Charter High School for Public Policy and a member of the board of directors for the Indianapolis Mind Trust, and the National Council on Teacher Quality.

Marshall "Mike" S. Smith has been the program director for education at the William and Flora Hewlett Foundation in Menlo Park, California since 2001. Prior to that, he was acting deputy secretary and undersecretary for education in the Clinton administration. During the Carter administration, he was chief of staff to the secretary for education and assistant commissioner for policy studies in the Office of Education. While not in government, he was at different times an associate professor at Harvard University, and a professor at the University of Wisconsin-Madison and Stanford University. At Stanford, he was also the dean of the School of Education. He has authored a large number of publications on topics varying from computer content analysis to early childhood education to effective schools and standards-based reform. He is a member of the National Academy of Education.

Jason C. Snipes is the Director of Research for the Council of the Great City Schools, where he oversees a program of research and dissemination aimed at tracking student achievement outcomes and arming the nation's largest urban school districts with research based strategies for addressing their core educational challenges, improving academic achievement, and reducing achievement gaps.

Prior to joining the Council, Dr. Snipes was deputy director of K-12 education research at MDRC, where he played a key role on a number of major research projects in education, including the national evaluations of Career Academies and Project GRAD. Dr. Snipes also led the development of the research design for several Department of Education sponsored studies, including random assignment studies of teacher professional development strategies in reading and mathematics. While

at MDRC, Dr. Snipes was also co-principal investigator and lead author of *Foundations for Success*, an influential set of case studies examining the policies and practices driving improved achievement in large urban school districts. Dr. Snipes holds a bachelor of arts in political science from Stanford University and a masters and doctorate in public policy from Harvard University's John F. Kennedy School of Government.

Lisa Towne is a senior program officer in the Center for Education at the National Academies. Her work at the National Academies has focused on the nature of education research and its implications for evidence-based education policy, as well as teacher quality and standards-based reform efforts. Prior to joining the Academies, she was the assistant director for social and behavioral sciences in the White House Office of Science and Technology Policy; a Presidential Management Fellow and social science analyst in the U.S. Department of Education's Planning and Evaluation Service; and a research associate for Caliber Associates. Towne has also served as an adjunct professor of quantitative methods and statistics at both the Georgetown Public Policy Institute and the Johns Hopkins University Institute for Policy Studies. She has a MPP from Georgetown University and a BS in mathematics from the University of Vermont.

Grover J. (Russ) Whitehurst was appointed in 2002 to a six-year term as the first director of the Institute of Education Sciences, the research arm of the U.S. Department of Education. The Institute includes the National Center for Education Statistics, the National Center for Education Evaluation and Regional Assistance, the National Center for Education Research, and the National Center for Special Education Research. Whitehurst previously served as U.S. assistant secretary for educational research and improvement. Prior to beginning federal service, he was leading professor of psychology and pediatrics and chairman of the Department of Psychology at the State University of New York at Stony Brook. During his academic career, Whitehurst published five books and more than 100 research papers on language and reading readiness in children. He developed programs for enhancing children's language development that are widely used in preschool programs in the U.S. and other countries. Whitehurst received a Ph.D. in experimental child psychology from the University of Illinois, Urbana-Champaign in 1970.



The **Academy for Educational Development**'s mission is to make a positive difference in people's lives by working in partnership to create and implement innovative solutions to critical social and economic problems.

An independent, nonprofit organization based in Washington, D.C., AED works globally to improve education, health, civil society and the environment—the foundation of thriving societies. In partnership with individuals, communities, organizations, business and governments, AED fosters sustainable results through practical, comprehensive approaches to development challenges.

Since its founding in 1961, AED has improved the lives of than 100 million people in the United States and developing countries by building the capacity of individuals, communities and institutions to become more self-sufficient. AED's worldwide staff of nearly 2,000 operates more than 250 programs serving people in 150 countries and all 50 U.S. states.

Our programs:

- improve school systems and access to quality education
- prevent the spread of HIV/AIDS;
- promote healthy behaviors and improve nutrition;
- support the development of new leaders;
- foster better governance and civil society;
- conserve natural resources;
- enhance economic development; and
- improve student achievement, teacher preparation, and workforce development.

AED has earned international recognition for ground-breaking efforts in such areas as behavior change communications, care and support for children orphaned by AIDS, school improvement, girls' education, education for children and youth with disabilities, community youth mapping, and successful public-private partnerships.

The Academy's staff of more than 1,900 worldwide has conducted projects involving every U.S. state and territory and the District of Columbia, as well as more than 150 countries. AED's U.S. Education and Workforce Development Group (USEWD), has extensive experience working with schools, school districts, colleges and universities, and community-based organizations on programs addressing specific issues, such as comprehensive education reform, college access and success, workforce development, children and youth with disabilities, teacher preparation, service learning, and youth engagement.

In addition to Washington, D.C., AED has U.S. offices in New York City and Boston, AED has program offices in 60 countries, and regional support offices in Kenya and South Africa. It has two affiliated offices, AED-Brasil and AED Ghana-CEDEM.



The **American Institutes for Research** (AIR) is an independent, nonpartisan, not-for-profit corporation based in Washington, DC. Since our founding in 1946, AIR's principal focus has been to deliver products and services that make research relevant to policymakers and practitioners. AIR employs nearly 1,300 staff members who engage in research, development, evaluation, analysis, technical assistance, and strategic communications in the areas of education, health, workforce, and international development, both nationally and internationally. Over the past 60 years, AIR has worked on more than 3,500 projects with government agencies and public and private organizations, including state departments of education, foundations, corporations, school districts, and schools.

The Education, Human Development and the Workforce division of AIR has nearly 300 staff members who assist public officials, program administrators, school and district staff, and parents and students by examining, evaluating, and improving the quality of education for all. The division is led by AIR Senior Vice President Dr. David Myers, a nationally recognized expert on the design and conduct of rigorous studies.

AIR's education work spans a wide range of program areas, including early childhood education, mathematics and science education, special education, reading and literacy, professional development, school reform and district improvement (including comprehensive school reform, standards-based reform, supplemental educational services, charter and magnet schools), English language learners, adult learning, educational assessment, school violence prevention, social and emotional learning, educational technology, teacher quality, and education finance.

AIR is currently involved in designing or conducting nearly a dozen large-scale randomized controlled trials in areas such as professional development, math and reading instruction, adult education, magnet schools, and classroom management; studying numerous multi-year federal, state, and district reform initiatives, including *No Child Left Behind*; running more than a dozen national technical assistance centers, including the National High School Center and the Response to Intervention Center; and providing implementation monitoring services, including for the federal Reading First initiative.

To meet the needs of our government and private clients AIR routinely applies a wide variety and range of methodologies, including randomized controlled trials, quasi-experimental designs, systematic evidence reviews, analysis of extant data, surveys, focus groups, and site visits to produce reports, create Web sites, and provide consultation services.

For further information visit AIR's Web site at: www.air.org.



Education Sector is an independent think tank that challenges conventional thinking in education policy. We are a nonprofit, nonpartisan organization committed to achieving real, measurable impact in education, both by improving existing reform initiatives and by developing new, innovative solutions to our nation's most pressing education problems. The ultimate beneficiaries of our work are students. Our mission is to promote changes in policy and practice that lead to improved student opportunities and outcomes.

Most of the organizations that come to mind when one says "education policy" either conduct research, represent constituents' interests, or advocate fixed policy agendas. Too often the research is written in language that's hard for policymakers to understand, and thus they don't use a lot of it. And much of the work produced by membership organizations and advocacy groups is less than objective, leading many thought-leaders and policymakers, including the education journalists participating in a 2003 survey sponsored by the Hechinger Institute on Education and the Media, to lament that much of the education policy work available to them is "ideologically motivated" and so "poorly written or jargon-laden" as to be difficult to comprehend. This lack of credibility and clarity in research and analysis hurts the cause of education improvement: policymakers make important decisions on the basis of biased information; good ideas don't reach the people with the power to implement them; and it becomes harder to create and sustain an intellectual climate that supports reform.

We have designed Education Sector to address these problems. It is a hybrid institution, formed at the intersection of research, public policy, and journalism. We believe that by marrying the methodological rigor of sound educational research with the communications excellence of the best journalism and the real-world impact of policy analysis, Education Sector is uniquely positioned to both make a compelling case for fundamental reform and to promote change directly with policymakers.

The immediate audiences for our work—the research we conduct, the advice and counsel and other analysis we provide lawmakers, our commentary, and the events we sponsor—include federal, state, and local policymakers, national, state and local education associations, educators, the press, public policy organizations, and other thought-leaders and policy actors. They have the influence necessary to leverage meaningful change for students. And we believe that they will embrace reform if they can be convinced that it is justified by thoughtful analysis and solid, independent evidence.

To achieve our goals, and to transition Education Sector from what has been a highly successful start-up enterprise to a sustainable and increasingly influential organization, we have crafted a work plan that allows us to maximize Education Sector's impact on education reform, and to align our organizational resources with that plan.

Through this work, we have identified four areas of education policy that we have concluded afford Education Sector the greatest opportunities to leverage change on behalf of students over the next two years:

1. K–12 Accountability Systems

2. Educational Choice
3. Teacher Quality
4. Undergraduate Learning

Our overall objective is to promote changes in policy and practice that lead to improved student opportunities and outcomes. We seek both short-term, incremental and long-term, dramatic improvements for American education. We define impact along a policy continuum, recognizing that different issues are at different stages in the public debate, and thus require different actions to make progress.

We are committed to measuring our progress and understanding our role in change. Learning and improvement are the driving forces of our evaluation efforts. Our evaluation process starts at the beginning—setting impact goals, articulating a theory of change, and mapping our integrated role in effecting that change. We use this framework to better formulate our work, anticipate gaps, and understand connections with other stakeholders.

Visit www.educationsector.org to learn more about Education Sector.



Knowledge Alliance/Center for Knowledge Use The Center for Knowledge Use is a newly activated non-profit organization dedicated to disseminating the principles of effective knowledge use in education reform. The Center is closely affiliated with the Knowledge Alliance (formerly known as NEKIA) a non-partisan national trade association for knowledge sector institutions in education. Knowledge Alliance's mission is to improve K-12 education by widely expanding the development and use of research-based knowledge in policy and practice. We believe that the effective use of research-based knowledge is essential to increasing student achievement and closing achievement gaps and should be a central organizing concept for the education reform efforts at all levels. We envision a new knowledge era in education policy and practice that focuses on the effective use of research-based knowledge to achieve successful and sustainable school improvement.

Our Guiding Principles

1. Provide leadership in transforming education to prepare young people for life, work, and citizenship in the 21st Century.
2. Conduct and apply high quality research to identify and solve educational problems.
3. Advance research and development as the driver of change in education as it is in other arenas.
4. Apply industry-accepted standards for research and evaluation methodology.
5. Involve stake holders in all work.
6. Assure both scientific rigor and relevance.
7. Recognize that knowledge development is cumulative.
8. Transform research into practice.

Our Members

Academy for Educational Development

AdvancED

American Institutes for Research

Center for Equity and Excellence in Education, George Washington University

Center for Research on Evaluation, Standards and Student Testing UCLA

Center for Research in Human Development and Education, Temple University

Center for Social Organization of Schools, The Johns Hopkins University

CNAC's Education Center, The CNA Corporation

The Collaborative for Teaching and Learning,

College of Continuing Education, University of Oklahoma

College of Education, Penn State University

The Education Alliance, Brown University

Education Development Center

Edvance Research, Inc

Edvantia

Learning Point Associates

Metro Center for Urban Education

Mid-Continent Research for Education and Learning (McREL)

National Clearinghouse for Education Facilities

Northwest Regional Educational Laboratory (NWREL)
Pacific Resources for Education and Learning (PREL)
The Reading Recovery Council of North America
RMC Research Corporation
SERRC, Juneau, AK
SERVE, University of North Carolina Greensboro
SEDL
Teachscape
Voyager Expanded Learning
WestEd
WGBH Public Television
Wireless Generation

815 Connecticut Ave NW Suite 220 Washington DC 20006 (202) 518-0847 <http://www.knowledgeall.com/>

NOTE: In March of 2002, the National Education Knowledge Industry Association (now known as Knowledge Alliance), the Education Quality Institute, and the Progressive Policy Institute jointly convened a policy forum at the Academy for Educational Development in Washington, DC titled "Research in Education: On the Leading Edge of School Improvement?" With the recent passage of the No Child Left Behind Act the forum attracted a standing room only audience and focused on the potential new role for education research in school improvement. This article --- written by the three lead planners of the forum---was based upon the forum's discussions and was published in Education Week in the winter of 2003.



Forging the New Education Knowledge Infrastructure

From Research to Practice: Moving Beyond the Buzzwords

Steve Fleischman, James W. Kohlmoos, and Andrew J. Rotherham
January, 2003

This fall, more than 50 million children are enrolled in schools across the United States. They are taught using various curricula, programs, and instructional styles. While some of these instructional approaches are based on research, many are not. As one of us was recently asked, "Why is it that I can go to the doctor and receive a simple, research-based diagnosis on how to lower my cholesterol, yet when I ask my son's teachers to provide a research base for their recommendation on how to correct my boy's speech impediment, I get no clear answer?"

This concern illustrates an important question in American education: What is the appropriate role of education research in teaching and learning?

Answering this question and finding consensus on the role of research in educational decision-making has become a hot topic. To help address this issue, earlier this year our organizations held a forum entitled *Research in Education: On the Leading Edge of School Improvement?* This meeting was the first in a series of activities intended to help ensure that evidence-based practice in education moves beyond buzzwords to become business as usual. The forum explored some of the important questions that have arisen: How desirable is evidence-based practice in education? Is it feasible and realistic? And if so, how do we achieve it? Finally, why do educators and policy leaders frequently fail to utilize education research?

The Underutilization of Education Research

In fields such as medicine, agriculture, computer sciences, economics, psychology, and even criminal justice, research is used to guide practitioners toward good results. This is not always the case in education.

- Those of us who are engaged in education or education policy know that teachers want to use instructional practices grounded in solid evidence of success. Unfortunately, teachers are neither trained nor encouraged to use research, even though it would benefit their students. Moreover, unlike a new medication that can be administered uniformly and relatively easily, applying research findings to educational improvement is often complex. Teachers need professional development and other support to do it.
- Education is a difficult field for researchers. While basic scientific research methods are the same for all fields, the complexities of teaching and learning, as well as complicated ethical and practical considerations, make research in education challenging.
- Education research itself has long been under-funded by the federal government, state agencies, universities, and foundations. The investment in education research and development by the U.S. Department of Education is less than \$270 million. In 1997, a presidential commission reported that less than 0.1 percent of the total amount spent on education in the United States was invested in research. By contrast, the commission noted that 23 percent of the amount spent on prescription and non-prescription medication was invested in drug development and testing.

Despite these factors, several developments have occurred that bode well for a new era of “education knowledge” and utilization of empirically proven teaching methods in our schools.

The first is new federal legislation. The 2002 federal education law, the No Child Left Behind Act, mandates the use of “scientifically based” research in a variety of federal programs, especially those dealing with remedial reading, and makes knowledge gained from research and development a central driver of our national education goals. The U.S. Department of Education is now working vigorously to implement the law’s provisions, resulting in dramatically increased demands for a strong, education knowledge infrastructure that includes research, development, dissemination, technical assistance, professional development, evaluation, and other research-based applications. Additionally, in October, Congress approved the Education Sciences Reform Act of 2002, a key piece of legislation that further emphasizes and expands the role of education research and development in federal education policy.

The second development is the emergence of an education knowledge industry, made up of researchers, educational developers, service providers, and a rapidly increasing number of entrepreneurs. Together this group develops, disseminates, and implements educational policies, products, and services. While the industry is new, of mixed quality, fragmented, and still in the process of defining itself, its time has clearly come.

Finally, increased importance of education in the job market has led to growing public insistence on quality schools. Education remains a top priority for Americans, so parents, educators, business and community leaders, and policymakers want to see our children achieve and our schools improve. Our citizens want global competitiveness, domestic prosperity, and civic health. We can realize these goals only if we create

success in every classroom. As we learn, such success will depend upon our application of research about teaching and learning.

The Benefits of Research

The many strengths of scientifically based educational practices have recently been outlined in numerous of publications, including the National Research Council's report on *Scientific Research in Education* (<http://www.nap.edu/catalog/10236.html>). Science can yield reliable and replicable findings that build confidence in the effectiveness (or failure) of the many alternatives advocated or practiced in education. These findings should increase the willingness of policymakers and educators to make required changes or stick with proven – albeit often difficult – reforms.

An emphasis on evidence over ideology should also end some of the ongoing fruitless debates that plague education and distract us from the goal of improvement. Since scientific knowledge is based on accepted methodologies and is constantly revised, there is room to improve or abandon practices as their worth is determined. This would help eliminate the misplaced search for “silver bullet” solutions.

The Next Steps

What has to happen for evidence-based education practice and policy to become a reality? No simple or single change will suffice. We believe that, at minimum, the following will be required:

- Researchers will have to take a hard look at the methods they use and the subject of their studies in order to improve their rigor and relevance. By coordinating agendas, researchers can develop an appropriate mix of the foundational knowledge of basic research and the immediately usable findings of applied research. The release later this year of a report from the National Research Council's Strategic Education Research Partnership should help in this regard.
- Higher education needs to create a career track that prepares researchers to conduct the needed long-term, rigorous studies and then rewards them for conducting quality work. Educators must also be better prepared to apply research-based school improvement techniques, though they do not necessarily need to be expert researchers.
- Educators – teachers, principals, and district and state education administrators – will have to learn, accept, and apply what “best evidence” demonstrates to be effective. The claim of professional autonomy has often been invoked as a shield to change in an era where accurate evidence leading to standards of practice was in short supply. However, as we increasingly develop well-established evidence, it is every educator's professional duty to be guided by what research tells us works best to improve student performance.

- School boards and superintendents must work to create and support an environment that fosters evidence-based education. They will need to set and stick to policies that are based on evidence of what works, avoiding decisions guided by whims, personal agendas, and pet projects, or the promises of quick and easy improvement.
- Evidence-based education must be promoted at both the state and national levels. Too often in policymaking, evidence is used selectively, as a weapon instead of a guide, and too often ideological goals trump educational ones. Education policymakers should be held to a higher standard, where evidence-based policies triumph over temporary political gains and serve the long-term best interests of children. In addition, substantially greater public sector resources must be devoted to supporting education research of all types. The federal government needs to step up to the plate and support research if it expects states, school districts, and schools to increase use of research-based practices.
- Parents, business and community leaders, and the public must be informed about, engaged in, and support the process of implementing evidence-based practice.
- Journalists have to do a better job reporting on research-based education reforms. Not every claim made in education should be reported as equally valid, nor should every story focus on tension, opposition, horse-race statistics, or simple answers. Understandably, reporters—like scientists—should be skeptical, but doubt and controversy cannot be the only story.

We are encouraged that many organizations—spanning a wide range of views on education policy and practice—participated in our policy forum and have committed to moving forward. The U.S. Department of Education has also made a powerful commitment by establishing a “What Works Clearinghouse,” which began to operate this August (<http://w-w-c.org>). This resource will be valuable for practitioners seeking research-based educational strategies. Our organizations are pleased to aid this movement, putting aside party, ideology, and other preferences in the interest of finding out what really works best for our children. We call on others to do the same. The effort will be difficult, but the need is urgent and the time is now.

Steve Fleischman is executive director of the Education Quality Institute. James W. Kohlmoos is president of the National Education Knowledge Industry Association. Andrew J. Rotherham is director of the Progressive Policy Institute’s 21st Century Schools Project.